IP BRIEFS®

Volume 3 / Issue 8 / October 2021

IN THIS ISSUE

SAIIPL

FROM THE EDITOR

Dr. MM Kleyn
Madelein.kleyn@outlook.com

Artificial intelligence (AI) is the ability of computers and machines to perform mental tasks commonly associated with humans, such as learning, reasoning and problem solving. We surely had an overdose of advanced AI supported work platforms, webinars, and online conferences this year!

Although core AI technologies, including neural networks, deep learning, and rule-based systems, have been known for a long time, they have developed dramatically in the past decade. AI was brought to the forefront of our lives, even more so during the COVID-pandemic. The rapid expansion of AI is due to several interrelated factors such as improvements in processing power, the development of powerful computing architectures, the availability of large volumes of data, and better AI core models and techniques.

Many elements of our life have been to some extent transformed by AI. Over time AI will eliminate most of the need for human intervention and it is clear that this will have a significant impact on intellectual property law. Not only have we witnessed the increase of AI in supporting patent and trademark searches, but, in the last quarter of 2021, we look back at a year wherein we have witnessed the continuance of conversations compelling intellectual property administrations and the lawmakers to grant patents for inventions of artificial intelligence (IA) and even consider, and in some cases allow, inventor status to systems that create innovative, beneficial, and domain-specific breakthroughs.

The appeal court ruled against Stephen Thaler, creator of a system called DABUS, who took a case against the UK's Intellectual Property Office (IPO) which refused inventor status patents to his AI. In a long-running battle to grant machines the status of inventor, Mr Thaler is pursuing on appeal the cases he has lost in the UK and in the United States. He has won in Australian court and in South Africa the patent office acknowledged AI inventorship through a recently unexamined granted patent. It seems inevitable that the role AI plays in the invention process must be reassessed and legislation and criteria may need to change... but such a change needs careful consideration...

"I do love compliments, yet I'm often embarrassed to say what I think to the person when I get a compliment. I so often feel that they have not gone far enough." (Mark Twain)

ARTIFICIAL INTELLIGENCE ("AI") AND THE ROLE OF PATENTS IN AN AI- DRIVEN WORLD:

THE EUROPEAN PERSPECTIVE AND RECENT ACTIVITIES AND DEVELOPMENTS AT THE EUROPEAN PATENT OFFICE ("EPO")

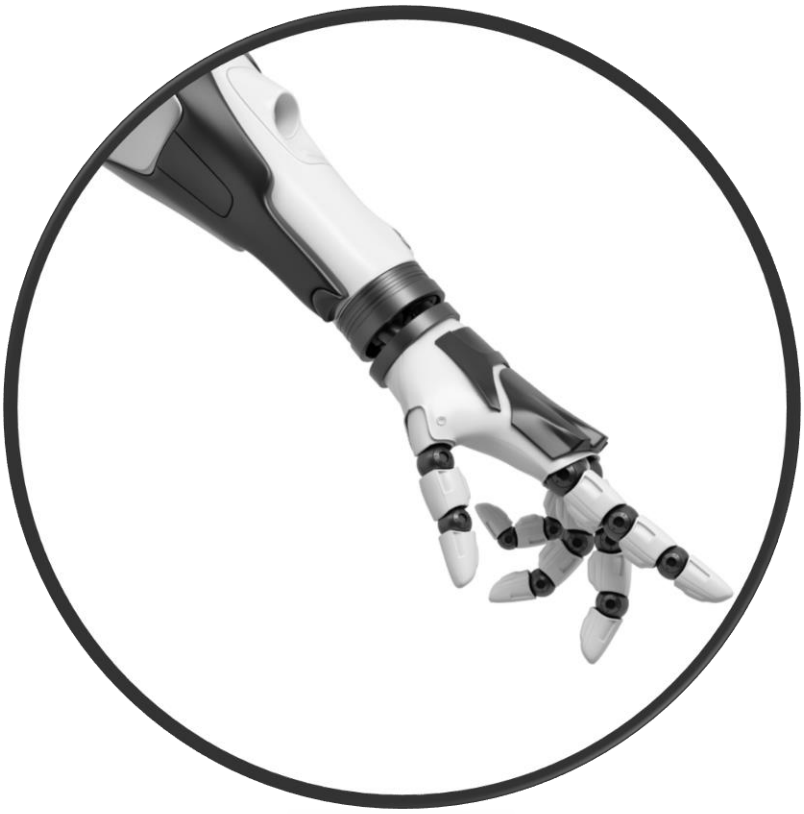
Andre van der Merwe

Andre is an IP attorney and a member and director of Cirrus AI, a South Africa and Africa AI-interest group. Cirrus AI is a private sector-led initiative to create world-class AI capability to support African research and development across academia and industry.

In the June 2021 edition of IP Briefs® we published the first article in this series by the present author. In the earlier article AI- and AI-related innovation and their protection in the United States of America, more particularly by way of patent protection, were discussed.

In this edition the author considers the corresponding approach in the European Union and particularly through the lens of the European Patent Office ("EPO"), based on news and reports available and published on the EPO website

Source: https://www.epo.org/news-events/in-focus/ict/artificial-intelligence.html)



INTRODUCTION

The EPO hosted its first public conference on AI in May 2018. In September 2020 the EPO participated in its first Tech Day virtual conference where leading thinkers and specialists shared their views, talents and knowledge. (See here.) The conference featured Dutch futurist Jamo Duursma.

This was followed by a second public virtual conference on 17-18 December 2020 considering the topic *"The Role of Patents in an AI Driven World."* This conference provided a platform for policy-makers, investors, inventors, Small and Medium Enterprises (SME's), academics, and IP professionals to exchange views and expertise on AI and IP rights. It considered the latest initiatives relating to AI at the level of European Institutions. The conference discussed the latest strategic projects between the EPO and major partner patent offices, and examined the legal aspects and tools that could influence their work. Chief Economist Yann Meniere presented key findings from the EPO's most recent study entitled "Patents and the Fourth Industrial Revolution". The conference additionally focused on SME's and their vital role in fostering a diverse European innovation landscape in the field of AI.

How AI is changing our world

The rapid growth of AI is due to several interrelated factors such as improvements in processing power, the development of powerful computing architectures, specifically designed AI applications, the availability of large volumes of data (critical for training AI models) better AI core models and techniques (mostly neural networks and deep learning).

Tasks that humans can easily and intuitively perform, such as recognizing a face in an image, have traditionally presented a challenge for automated data processing. Today, however, AI is able to match or even exceed human capability in these areas.

Interestingly, many AI models and techniques are application-agnostic – namely these can easily be used in all technology fields. This "out-of-the-box" property, when combined with big data, cloud computing, 5G or the internet of things ("IoT"), enables AI to solve technical problems in almost any domain.

AI in the Fourth Industrial Revolution ("4IR")

The production of large amounts of data is a key feature of the Fourth Industrial Revolution and is enabled by the technologies mentioned above. Also important is the development of powerful diagnostic systems to extract value from such data. Tools such as machine learning and neural networks can be used to recognize objects , for example faces, learn languages, create novel designs or detect patterns that were previously impossible for humans to grasp. By making the interpretation of such patterns meaningful for machines, as well as for humans, these enable machine prediction, diagnosis, modelling, risk analysis and the automation of complex tasks with human supervision.

AI is now used in virtually every sector of science and industry, and we are merely beginning to feel its impact, for example -

a) In healthcare informatics and bioinformatics – AI clinical sample screening and decision-making are as good or better than by a human operator. AI will play a growing role in identifying protein structures, targeting drug interactions, and analyzing DNA and RNA sequences. AI has been key in developing vaccines in a matter of months for the Covid-19 virus, instead of several years - as would have been the case in earlier years.
b) In automotive self-driving (vehicles) technology will require real-time processing of a massive amount of V2V (vehicle to vehicle) and V2X (vehicle to everything) data.
c) In industry – automated predictive maintenance, data analysis, process design, and defect detection will help factories to run efficiently and to consistently produce high-quality products.

The rise in AI-related patent applications

A recent EPO study shows that the number of international patent families ("IPF") in core AI technologies applied to smart connected devices has been increasing at an average annual rate of 54.6 % since 2010 (albeit with relatively low absolute numbers to date), which indicates the international impact of AI.

More particularly, the global growth of international patent families for core AI from 2008 to 2018 has increased from 42 to 1 109, as shown in the December 2020 EPO report entitled "Patents and the Fourth Industrial Revolution: Global Technology Trends Enabling the Data-Driven Economy". Each IPF relates to a single invention for which patent applications have been filed and published at several patent offices. It is a reliable indication for inventive activity because it provides a degree of control for patent quality by showing only inventions for which the inventor/applicant considers the value sufficient to seek protection internationally.

AI has been one of the key drivers of the large increase in 4IR-related patenting over the past decade. Between 2010 and 2018 global

patent filings for technologies involving smart connected devices had grown at an annual rate of almost 20% - nearly five times faster than the average of all other technology fields. AI is particularly important in fields of data management (from production to feedback) and user interfaces (such as voice and face recognition). This is so as AI's ability to expertly work with data analytics is the primary reason why artificial intelligence and big data are now seemingly inseparable. AI also features extensively in application domains such as Rrcommendation systems (the "Our picks for you" or "Things that might interest you"); games; transportation systems, logistics and warehouse management and design and architecture.

AI and EPO patentability

The EPO has responded to the emergence of AI in patent applications by refining its approach to the patentability of inventions involving AI.

AI is considered a branch of computer science and therefore inventions involving AI are considered to be 'computer-implemented inventions' (CII). In this context, the Guidelines for Examination in the EPO (F-IV. 3.9) define the term CII as inventions which involve computers, computer networks or other programmable apparatus, whereby at least one feature is realized by means of a program.

Computer-implemented inventions are treated differently by patent offices in different parts of the world. Article 52(2) (c) of the European Patent Convention ("EPC") excludes computer programs "as such" from patent protection. However, inventions involving software are not excluded from patentability as long as they have a technical character.

As a matter of interest, the above-mentioned "as such" exclusion from patentability has also been provided in the South African Patents Act *vide* section 25(2) & (3).

Over the years, the case law of the EPO Board of Appeal has clarified the implications of Article 52 EPC, establishing a stable and predictable framework for the patentability of computer-implemented inventions, including inventions related to AI. This framework has been reflected in the EPO's Guidelines for Examination.

Like any other invention, in order to be patentable under the EPC, a computer-implemented invention must not be excluded from patentability (Article 52(2) and (3) EPC) and must fulfil the patentability requirements of novelty, inventive step and susceptibility of industrial application (Article 52(1) EPC). The technical character of the invention is important when assessing whether these requirements are met.

The same approach applies to computer-implemented inventions related to AI. See in particular the Guidelines for Examination in the EPO (G-II. 3.3.1 Artificial intelligence and machine learning).

AI is based on computational models and mathematical algorithms which are *per se* of an artificial nature. Nevertheless, patents may be granted when AI leaves the abstract realm by applying it to solve a

technical problem in a particular field of technology. For example, the use of a neural network in a heart-measuring apparatus for the purpose of identifying irregular heartbeats makes a technical contribution. The classification of digital images, videos, audio or speech signals based on low-level features e.g. edges or pixel attributes for images, are other typical technical applications of AI. Further examples are listed in the Guidelines for Examination in the EPO (G-II. 3.3 Mathematical methods).

In addition, a technical solution to a technical problem can also be provided when the invention is directed to a specific technical implementation of AI i.e. one which is motivated by technical considerations of the internal functioning of a computer. This will include a specific technical implementation of neural networks by means of graphics processing units ("GPU's").

The EPC therefore enables the EPO to grant patents for inventions in many fields of technology in which AI finds a technical application. Such fields include, but are not limited to, medical devices, the automotive sector, aerospace, industrial control, additive manufacturing, communication/media technology, including voice recognition and video compression, and also the computer or processor itself.

Inventorship of AI inventions

The impressive developments in the area of AI have sparked suggestions that AI could invent just as humans can and that it should be accepted as an inventor.

From the perspective of inventorship, three categories of AI inventions may be identified –

a) Human-made inventions using AI for the verification of the outcome; or
b) Inventions in which a human identifies a problem and uses AI to find a solution; or
c) AI-made inventions in which AI identifies a problem and proposes a solution without human intervention.

In the first two categories, AI is used as a tool for human inventors, augmenting their capabilities. In the third category (AI-made inventions) scientists seem to agree that AI which could invent independently of human direction, instruction and oversight is a matter of undefined future and thus amounts to "science fiction" (-at least for the present time).

There is a common understanding that the inventor is a human being – the person who created the invention by their own creative activity. This has been confirmed by an academic study on AI inventorship commissioned by the EPO and in discussions with the EPC contracting states.

Furthermore, the EPC requires that an inventor designated in the patent application be a human being and not a machine.

The designation of an inventor bears a series of legal consequences, notably to ensure that the designated inventor is the legitimate one and that he/she can benefit from rights linked to that status. To exercise these rights, the inventor must have a legal personality that AI systems do not enjoy. See Articles 60 and 62 EPC.

The legal concept of inventorship requiring a human being to be the inventor was challenged when two applications indicating an AI system (DABUS) as the inventor were filed with various patent offices worldwide, including the EPO. In 2019 the EPO refused these applications (EP 18275163 and EP 18275174) on the ground that the EPC requires the inventor to be a natural person. The applicant has filed appeals which are pending as cases J 8/20 and J 9/20.

Corresponding applications have been filed with the Intellectual Property Office of the United Kingdom ("IPO") and the United States Patent and Trademark Office ("USPTO"). As with the EPO, the IPO and the USPTO have argued that an inventor must be a human being. The IPO decision was confirmed by the UK High Court while the USPTO decision has been challenged and the case is pending.

EPO AI tools

In 2019 the EPO created a dedicated Data Science team with the goal of applying artificial intelligence and machine learning technologies to increase efficiency and quality in the EPO patent granting process. The team has six data scientists as core members and is supported by DG1 (Patent granting procedures) patent examiners with the necessary technical knowledge and business understanding. The team is focused on three core intelligence projects – Natural Language Processing, Computer Vision, and Machine Translation – and is applying these projects to the patent grant process areas of classification, search (and examination), and machine translation.

EPO AI uses state-of-the-art deep learning network architectures and adapts these to handle the challenges of the patent domain. The EPO's core language models are trained on millions of documents stored in the EPO's prior-art databases and are fine-tuned to address the complexities of the patent domain, such as technical language and syntax. AI at the EPO presently is driven by supervised machine learning using the previous work of the EPO's highly skilled examiners.

The Data Science team works with departments across the EPO to share knowledge on topics related to AI. This includes web seminars aimed at beginners in the area of artificial intelligence and expert-level training on technical subjects such as the language model used by many teams in the first ever EPO Code Challenge – an internal coding competition with participants from across the EPO. The competition has given EPO experts the opportunity to use AI to solve a real business problem namely how to automate patent classification for climate change mitigation technologies.

AI and International Co-operation

The five largest IP offices in the world receive over 80% of all patent applications globally. Known collectively as the "IP5" - the EPO, JPO (Japanese Patent Office), KIPO ([South] Korean Intellectual Property Office), CNIPA (Chinese Intellectual Property Agency), and the USPTO - cooperate on a variety of projects to improve and harmonize the global patent system. Since 2018 the IP5 offices have explored a joint approach in response to global technological developments. In 2019 the IP5 offices decided to advance their co-operation in the area of New Emerging Technologies ("NET") and AI by setting up a special task force to co-ordinate their initiatives.

The new interdisciplinary IP5 task force, which comprises all of the IP partner offices and WIPO (the World Intellectual Property Organization – an agency of the United Nations) is exploring legal, technical and policy aspects of new technologies and AI, and their impact on the patent system and on operations at the five offices. The aim is to pinpoint which areas can benefit most from joint IP office responses, ranging from employing AI tools and systems to support patent examiners and improve the patent grant process. This includes applying the patentability requirements to inventions in the field of AI and dealing with applications for inventions created by machines.

In January 2020 the task force met for the first time in Berlin, Germany and explored candidate co-operation topics including ways to promote legal certainty, establish clear guidance on applicable laws and regulations, and how to support users in protecting their NET/AI – related innovations globally. The task force also discussed the potential they saw in the application of NET and AI in office operations and user services.

The IP5 offices face similar challenges and opportunities when it comes to rapidly-evolving technologies, and by cooperating they can create benefits for offices and users alike.

The IP5 meeting held in June 2021 resulted in an agreed road map for cooperation between these partner patent offices in the fields of new emerging technologies and AI and launching new projects aimed at harmonizing patent prosecution procedures and practices. In addition, they exchanged views on various areas of future IP5 cooperation, with an eye on the post COVID-19 era and the role of IP rights in solving social issues.

Further Recent Developments – Historic Australian Court Decision

In July 2021 following an ABC News broadcast, Australia's Federal Court (per Justice J Beach) handed down a ground-breaking decision in respect of the corresponding

Australian DABUS patent application(s) namely that an AI system can be legally recognized as an inventor in a patent application.

It is not certain whether an appeal may lie to a higher court to challenge this finding but in any event this fundamental change in Australian patent law, and the effect thereof, is limited to Australia.

Interestingly, also during July 2021, the South African Patent Office granted a patent in which DABUS was recognized as an inventor. As explained, this was "an administrative decision which didn't involve the judicial consideration" (that was applied in the above Australian Court decision). It is not clear whether or not the corresponding DABUS South African patent application(s) were fully and legally-technically examined by the Patent Office which is busy implementing substantive examination of locally filed patent applications.

In any event, such a patent (or patents) could in future be attacked and revoked for invalidity on the basis that the AI DABUS system could not validly be cited as an inventor since only natural persons can be cited as inventors, in terms of existing South African patent law.

EPO and ELLIS Collaboration

On 25 March 2021 EPO and the ELLIS Society signed a Memorandum of Understanding ("MoU") to provide a general framework that will guide collaboration between the two institutions.

The ELLIS Society is a non-profit association that leading scientists working in the field of AI in Europe established in 2018 for the purpose of founding the European Laboratory for Learning and Intelligent Systems ("ELLIS"). The aim of ELLIS is to bring together top researchers from all over the world to shape the future of machine learning and AI. The initiative currently comprises 30 research units located in academic institutions spread across 13 European countries and Israel.

The MoU provides a platform for exchanging insights into AI policy and patent-related topics.

Copyright Dark Forces

By Prof Owen Dean

Professor Emeritus at the Law Faculty at Stellenbosch University, South Africa. He is the founding incumbent of the Anton Mostert Chair of Intellectual Property Law at Stellenbosch University. A previous Senior Partner, presently a consultant, of Spoor and Fisher, leading Intellectual Property Attorneys

INTRODUCTION

Copyright is a system which grants creatives (i.e. writers, artists, composers, film makers, record producers and the like) certain exclusive rights to their works which enable those works to be commercially exploited for financial reward. Creatives are thus empowered to make a living out of their works, which in turn is an incentive to make more and better works. In general, the modus operandi is for copyright owners to grant licences for the use of their works, subject to the payment of royalties. They have complete freedom and flexibility regarding the nature and content of the licences.

This system has been in place for centuries. The Berne Convention, the figurative twelve tables of copyright law, which regulates the content of copyright law and its international application, dates from 1886. The system works well and has played a significant role in the development of the arts and sciences over the years.

Many creatives have accumulated wealth from the system, while at the same time enriching the arts and sciences to the benefit of the public at large

COPYRIGHT ANTAGONISTS

In recent times copyright has come under attack. It is seen by some as placing unwarranted restrictions on the dissemination of knowledge and information, and to be restrictive of development. This school of thought holds that the public interest is best served by removing most, if not all, restrictions on free use of works and in particular doing away with the element of payment for the privilege. Copyright is perceived by them to be an oppressive evil which is best debilitated or even eradicated. Those who actively seek the debilitation of copyright can be considered to be the copyright dark forces.

The copyright dark forces are made up of essentially two groups of people. The first are mainly idealists who honestly subjectively believe that copyright is

prejudicial to modern society and are guided by this principle. Ivory tower academics are a significant component of this group. The second group are business people whose selfish commercial interests will be furthered by the ability to indulge in wholesale unauthorised copying of works with impunity. Large international on-line businesses which rely on having vast libraries of works which can be accessed freely by the public are prominent members of this group. Although they are very different in their make-ups and ideologies, the two groups have the same objective which makes them allies of a sort, and they can be tarred with the same brush.

Amongst those who are the adversaries of the copyright system are movements or organisations such as Open Source (which propagates free public access to works), Copyleft (which advocates the right to freely distribute and modify works), and Creative Commons (which has as its goal helping to overcome the legal problems to the sharing of knowledge and creativity). These bodies are actively eroding authors' exclusive rights arising from copyright. They harbour in their midsts members of the copyright dark forces.

WEAPON OF DESTRUCTION

One of the chief weapons of the copyright dark forces is the promotion of widespread exceptions to copyright. Exceptions have been made to copyright since the days of yore. The Berne Convention provides for them, subject to conditions, namely that they should only be granted in certain exceptional cases that are not in conflict with the normal exploitation of a work and which are not unreasonably prejudicial to the copyright owner. These conditions are known as the 'Three Step Test'. These exceptions in moderation balance the interests of copyright owners with those of the public who reasonably require free use of works in certain circumstances. However, the copyright dark forces see exceptions as an excellent means of achieving their objective and pursue them in excess. When the exception becomes the rule, copyright is rendered nugatory.

ATTACK STRATEGY

In seeking the demise of copyright, how should one go about it? The system is far too firmly entrenched internationally to launch a frontal attack on it. The prospects of success of this approach would be minimal. The better approach would be to attack it from within – to feed it a slow poison or infect it with a virus that will progressively destroy it. One could do this relatively unobtrusively while even creating the façade of supporting it. Duplicity in public life is not unknown. As we know only too well, a virus can act invisibly and can effectively kill the host stealthily. Implanting excessive debilitating exceptions in copyright legislation would act very effectively as a fatal virus leading to the demise of the system.

WIELDING EXCEPTIONS

The Copyright Amendment Bill of South Africa seeks to implant excessive exceptions, which do not comply with the Three Step Test, in the Copyright Act. The

introduction of these exceptions is applauded by the copyright dark forces. The crucial question is whether the Department of Trade and Industry (DTI) and the Parliamentary Trade and Industry Portfolio Committee, the authors and sponsors – the patrons - of the Bill, are innocent parties caught up in the process of infecting the Copyright Act with the exceptional virus, or whether they are active, knowing participants.

There is no doubt that elements of the copyright dark forces have consulted with the patrons in the drafting of the Bill and egged them on. The patrons have also sought the counsel of such persons when dealing with the justified criticism of the Bill. Conversely, the patrons have paid scant regard to the opinions and representations of what might be termed the copyright purists, namely those who seek to uphold the ideals of the copyright system. Have the patrons been duped by the duplicitous conduct of ostensibly well-meaning members of the copyright dark forces, and thus been misguided in their adoption of excessive exceptions, or are they the accomplices and fellow travelers of the virus carriers? Have they perhaps been captured by big business? What are the true intentions and attitudes of the patrons towards copyright? These are questions on which informed opinion has differing views.

What is certain, however, is that, in introducing excessive exceptions into our copyright law by means of the Copyright Amendment Bill, the patrons are advancing the aims and objectives of the copyright dark forces.

In the interests of preserving the integrity of our copyright law this process must be aborted.

A more comprehensive article was published on the Anton Mostert Chair of Intellectual Property of Stellenbosch University Blog here: https://blogs.sun.ac.za/iplaw/2021/04/19/copyright-blind-spot/

By Chyreene Truluck

Considering the IP, Regulatory and Food Security Implications of Gene Editing Crops

CHYREENE TRULUCK

Chyreene is a South African patent attorney and a partner at Spoor & Fisher specialising in Biotechnology and Life Sciences patent matters. She holds an MSc in genetics and has worked in the field of IP portfolio management for over 13 years.

Chyreene is a Fellow of SAIIPL and secretary of the board of LES SA. She also contributes to the annual update of the South African chapter in "International Pharmaceutical Law and Practice", Kleyn & van Wyk (General Eds.) LexisNexis, as well as the South African Chapter of The Life Sciences Law Review – 9th Edition, Richard Kingham (Law Business Research Ltd) 2021.

Global food security is increasingly challenging in light of population growth, the impact of climate change on crop production, and limited land available for agricultural expansion.

One solution has been presented in the form of gene editing, a technology – based on a natural process in bacteria – that allows researchers to excise certain parts of DNA in order to control traits, including human disease.

In practice, this technology can make a significant contribution to global food security, in part by improving so-called "orphan" crops that are regionally important to health, food and rural incomes. Much has been said in the IP environment about patenting of the CRISPR/Cas9 system due to the importance of this technology for scientific advancement, but what are the intellectual property (IP) implications of gene editing of food crops?

Introducing Genome Editing

Traditionally trait enhancement of crops is achieved through breeding and selection of desired features.

More recently, gene modification in plants involves modifying the genome of cultured plant cells by introducing new genetic material and then regenerating whole plants. These methods have been vilified by the anti-GMO movement for introducing foreign DNA from other organisms, with anti-GMO groups arguing that we don't know what the effect of introducing foreign genes into plants will be, nor the potential effect of consuming them down the line.

But gene editing is different: it mimics the natural process of mutagenesis, or changing or mutating DNA. It targets a single nucleotide or a short region of DNA in the plant to modify it advantageously, instead of waiting for nature to do so and hoping for advantageous mutations.

It can be argued that there is a significant difference between introducing foreign DNA into a crop that will eventually be eaten, and changing a single nucleotide in the plant's DNA – in much the same way that naturally arising mutations would. This could also be why opinions are more polarised when it comes to genetically modified organisms (GMOs) than gene editing.

Regulating Gene-Edited Crops

Despite the differences between gene modification and gene editing, regulatory developments indicate that some governments are adopting unnecessarily rigid regulations, considering that gene editing techniques are not that different from what occurs naturally through mutagenesis, barring the fact that the gene editing mutations are targeted.

One example of what is emerging as a seemingly rigid regulatory landscape is that of Europe. Recently, the highest court in the European Union ruled that gene-edited crops are GMOs, and must comply with the strict regulations applied to plants made with genes from other species.
In South Africa, our law is very similar in many respects to European law. South Africa's regulatory law for GMOs, the Genetically Modified Organisms Act 15 of 1997, provides that a GMO is an organism of which "the genes or genetic material has been modified in a way that does not occur naturally through mating, natural recombination or both".
This is broad enough to encompass gene editing and to hamper the regulatory approval of plants that have been modified using gene editing techniques.

Intellectual Property Issues

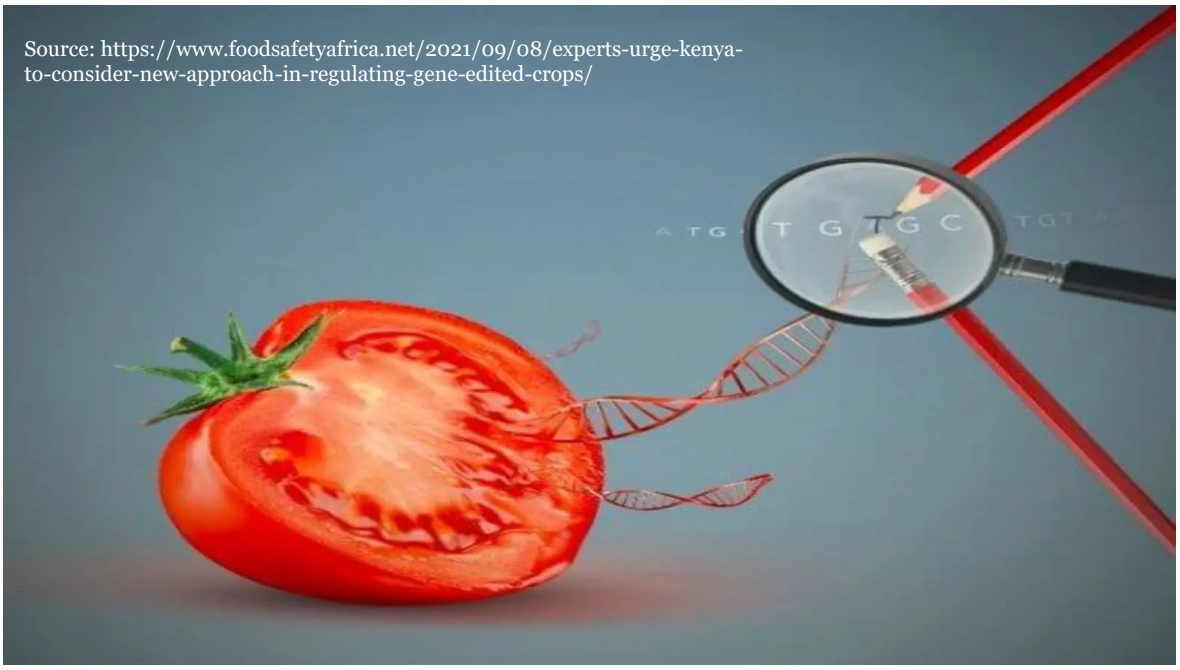
And what of the intellectual property implications of gene editing?

South African patent law, according to Section 25(4) of the South African Patents Act, provides that a patent shall not be granted for any variety of animal or plant or any essentially biological process for the production of animals or plants, not being a micro-biological process or the product of such a process.

But there is no case law in South Africa to interpret the meaning of this section.

In Europe, it is possible to obtain patent protection for transgenic plants, plants obtained by mutagenesis (including gene editing), and/or biotechnological methods of producing them, so it is likely that our courts will follow the European approach.

In addition, it is also possible to obtain Plant Breeders' Rights (PBR) protection, provided that the plant meets the requirements for PBR protection; i.e. that it is new, distinct, uniform and stable.



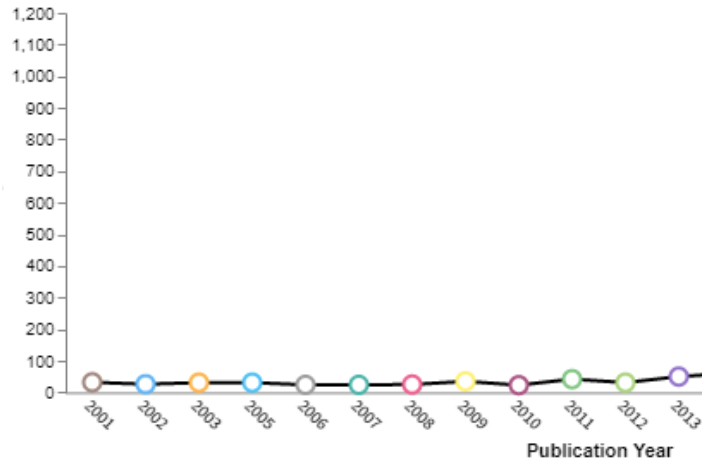
Source: https://www.foodsafetyafrica.net/2021/09/08/experts-urge-kenya-to-consider-new-approach-in-regulating-gene-edited-crops/

Democratising Gene Editing

CRISPR, also called CRISPR/Cas9, stands for "Clustered Regularly Interspaced Short Palindromic Repeats/CRISPR associated protein 9", which is the full name for the gene editing technique often applied to selective mutagenesis.

"Crispr has been democratized," says Rodolphe Barrangou, editor of *The Crispr Journal* and head of a multi-disciplinary Crispr lab. "With 100,000 labs and 10 people per lab, we now may have over a million geneticists working with this technology."

This is true, and it bodes well for food security. The graph below, which is based on a patent search formulated to identify patent publications related to gene editing in plants or crops, indicates patenting activity in this field, especially over the last decade.



Gene editing published patent applications for plants or crops by publication year; source: Derwent™ World Patents Index (DWPI) (Inventions based on unique DWPI families; 2021 publications shown to August 2021)

What's more, the fact that the CRISPR/Cas9 system is patented does not prevent others from obtaining patents for specific embodiments of this technology and, in particular, from using it to produce new, stronger crops, suited to agricultural conditions on the African continent.

One of the often-cited advantages of gene editing technologies over traditional gene modifications is that more players can become involved, because of the ease and simplicity of this technology. In turn, this could lead to greater food security.

Considering a Patent Commons

Patents are also regularly cited as being a "bad" for stifling research in the field of crop development, and of hampering food security.

In other fields, a regularly used mechanism for creating openness in research and development has involved putting material in the public domain, with certain restrictions. One example of this is developers of free and open source software using software copyrights to impose requirements of openness on future programmers; requirements greater than those attaching to a public domain work.

In the same way, given that there are purportedly so many laboratories undertaking this type of research, these researchers in the field of gene editing may decide to use IP rights to create a "food security commons". There's nothing that precludes a patent commons for gene editing technologies, and this could be a great way to develop technologies for solving problems linked to food security. For example, a similar "Covid-19 commons" exists for sharing solutions to combat the pandemic.

My view is that, if we can combine the scientific strides being made with the appropriate IP protection and alignment of the regulations with the actual risks posed, gene editing could very well turn out to be an important technology for future food security.

Oatly suffers a legal (and PR?) setback

By *Gaelyn Scott*

Gaelyn is an Executive at ENSafrica. She heads up the Intellectual Property (IP) department. Gaelyn specialises in strategic brand management and the enforcement of IP rights, both locally and internationally, with extensive experience in Africa. She is experienced in litigation and dispute resolution relating to IP rights.

The recent UK trademark and passing-off case of *Oatly v Glebe Farm Foods,* has attracted considerable attention. While the trademark aspects have been much discussed, the reputational issues are also important.

Oatly

For the benefit of those who don't do plant-based foodstuffs, Oatly is the world's largest oat drink producer – this very successful Swedish company started life in the 1990s and it's now apparently worth some USD10-billion.

Oatly is one of those companies that is said to use the "wackaging" approach to marketing and branding. What is wackaging? Here's a definition from *Collins*: "The increasingly overly familiar, infantilised copy that's become ubiquitous ever since 'Innocent' adopted a wacky and distinctive tone of voice on their packaging in 2000." Oatly's marketing puts a strong emphasis on a sustainable lifestyle. Among the slogans it has used are "It's milk but made for humans" and "Wow no cow".

Source: https://vegconomist.com/market-and-trends/conscious-stockpiling-sales-of-oat-milk-plant-based-meats-skyrocket-in-the-us/

Glebe Farm Foods

Glebe Farm Foods sounds like it may be as far removed from Oatly as it's possible to be. This small, family-run UK company launched an oat drink in 2019 under a label comprising the descriptive term Oat Drink and a tractor logo. In 2020, the company upped its branding game a bit by adopting the trademark PureOaty. It was the change from Oat Drink to PureOaty that caused all the trouble. Oatly sued Glebe Farm Foods for trademark infringement, based on both the likelihood of confusion and dilution, and for passing-off.

Source: https://www.amazon.co.uk/Glebe-Farm-Gluten-Free-Oat-Drink/dp/B07V46GKZY

The judgment

Judge Caddick was not at all convinced by Oatly's claims regarding the alleged similarities, similarities that covered the brand names but also included the use of the colour blue and an irregular font. The judge regarded the fact that one trademark, (PureOaty) comprises eight letters and the other just five (Oatly) as relevant.

The judge used terms like "a very modest level of similarity" and similarities "at a very superficial level". He said that "the average consumer would see the degree of conceptual similarity as being low to moderate at best and as deriving from the presence in both the sign and the marks of the descriptive word 'OAT'".

The judge also said that "it is hard to see how any relevant confusion would arise from the defendant's use of the sign PureOaty." He said further that "I do not see that there is any risk of injury to the distinctive character of Oatly's marks".

The judge therefore dismissed the claim of trademark infringement based on possible confusion, as well as the claim that the trademark was taking unfair advantage of, or was detrimental to, the distinctive character or repute of the trademark, the dilution claim. He also dismissed the claim of passing-off

The reaction

Glebe Farm Foods was naturally delighted with the result, saying that "it is enormously gratifying… to see that smaller independent companies can fight back and win." It was no doubt even more delighted when Oatly announced that it would not be filing an appeal. An Oatly spokesperson made this magnanimous comment: "For us, this case has always been about protecting our trademark and how the single letter Y creates too much similarity between Oaty and Oatly". Although there was also a bit of a bite: "We just think they should do so in their own unique voice, just like we do".

The PR aspects

The PR aspects of this case have attracted attention. This may be down to the fact that a company like Oatly, which is involved in plant-based foods and is apparently endorsed by a number of celebrities including Oprah Winfrey, needs to be particularly attuned to public opinion.

An article in *The Drum* by Jennifer Faul makes for interesting reading. The article makes the point that a company like Oatly needs to think hard about pursuing a smaller company: "Any time Oatly goes after a big guy, it'll be fine. It can still play the underdog. But going after smaller businesses or a farm or a family business, it becomes the Goliath. And so, it needs to set some rules on how it operates and guidelines on how it wants to handle its engagements and litigations with small businesses in a more coordinated way".

The article also makes the point that things change for companies as they become bigger and more conventional. Oatly is apparently no longer the cool wacky little company it once was: "It now has to be mindful that it has introduced a narrative to the brand and has moved from being the small guy with the cool, funky product to being Blackrock-owned and going after small farms...that's the narrative you'll see popping up – that it is not the company it is portraying itself as".

The upshot

Trademark issues and reputational issues often go hand in hand. It's worth remembering, and is certainly a consideration in the advice we give to our clients.

CONFLICT OF INTEREST – A UNIVERSITY PERSPECTIVE

CORNELIA MALHERBE

Universities are required to develop and implement a Conflict of Interest policy as well as mechanisms to manage any potential-, perceived- or actual conflict of interest. Apart from it simply being good governance (as per King IV report), it is a requirement set by external funders (such as the National Institutes of Health in the United States of America) as well as legislative, vis-a-vis the Higher Education Act.

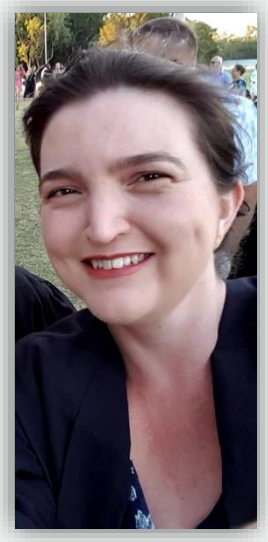
In developing a Conflict of Interest Policy it is necessary to define the rules of engagement of university members, such as employees, students, contract workers and consultants. It is always advisable to benchmark practices and policies with those of reputable universities nationally and internationally to ensure that all important aspects are addressed in such a policy, and to ensure compliance to any specific national regulatory and legislative requirements. Given the nature and personality of university members, a consultative process when developing such a policy, as buy-in from all levels within a university, is critical.

The more difficult part is the implementation of such a Conflict of Interest Policy at institutional level. In the university context, there are an undefined number of permutations of how a potential-, perceived- or actual conflict of interest might arise, and without appropriate consideration, such a situation can easily lead to a fraudulent action (even when unintended).

Within the complexities of university environments, there is a broad breeding ground for conflict of interest situations to arise (even unintentionally), which can stretch from a lecturer prescribing text books of which he/she is the author/co-author, to entrepreneurial researchers appointed at the university who have interests in university spin-out companies, or non-university companies. For the purpose of this article, the author focuses on the latter point sharing personal experiences.

When implementing a Conflict of Interest Policy, and managing it appropriately, the following pitfalls are faced:

- Not all conflict of interest incidents are intentional but can result in fraudulent actions. The principle of "*when in doubt, declare*" should be encouraged.
- Declaring a potential-, perceived- or actual conflict of interest is important, but it doesn't give permission to continue.
- The proverbial: "**it is better to ask forgiveness than permission**" is not a consideration.
- Conflict of interest management plans are challenging and mostly incomplete usually due to inexperience from the person declaring the conflict of interest, as well as the line manager/s that need to review and sign-off on the conflict of interest disclosure.



CORNELIA MALHERBE

Cornelia is the Director: Research Contracts at the Stellenbosch University. She is recognized by her peers as a leader in the field of research contracts management locally and internationally and was the Recipient of the Stellenbosch University's (SU) Chancellor's Award for Research in 2018 and the Recipient of the National DSI-SARIMA Award for Distinguished Contribution to the Research and Innovation Management Profession in 2019. Her career in research contract management kicked off in 2003 where she was tasked with the establishment of a research contracts office at SU. Her core responsibilities include research contracts negotiations and remedial actions; development and implementation of critical institutional policies; plays a pivotal role in research management and governance; legislative-, due diligence- and audit compliance and risk management related to research. She is currently enrolled for her PhD in Industrial Engineering with a focus on Integrated Research Contract Management within the university context.

- Dissemination of conflict of interest disclosures on a need to know bases to the appropriate personnel, is tricky.
- It is important to raise awareness of conflict of interest.

Despite having a Conflict of Interest Policy, and ongoing efforts in raising awareness and providing advice and guidance, conflict of interest situations arose (even unintentionally) which poses risk and potential reputational damage to the university and its personnel.

Universities are regularly confronted with the difficulty in managing the conflict of interest that arises when a university academic/researcher are directly involved with a spin-out company specifically established to commercialise the intellectual property derived from research at the university. In several cases it has been clear that researchers find it difficult to distinguish between the role of researcher at the university and that of an employee, founder or director of the start-up company , when research funding is sourced, specialised equipment purchased, research results presented at conferences, to name but a few conundrums. Is the activity on behalf of the university, or the spin-out company? Many cannot easily make the transition and thus create conflict of interest situations which must be addressed swiftly. In doing so, it is advisable that researchers, deans and line-managers ensure that there is an appropriate conflict of interest management plan which specifically addresses at least the following:

- Annual formal disclosure of conflict of interest;
- a mechanism where specific decisions can be objectively made (and not by the person involved at the university and the company); this can be in the form of a small committee with expertise ranging from intellectual property to academic research, which will decide when a funding opportunity should be sought on behalf of the university or the company;
- ensure that the university and the company is not competing against each other (therefore clearly define which area of expertise each will operate in).
- A potentially conflicted person should recuse him/herself from any decision-making process where he/she could have conflicting interests, and it might even mean that the person needs to resign from the university and take up full time employment within the spin-out company.

A conflict of interest management plan must be very well designed as it can easily be manipulated and not have the desired governance effect. A typical scenario is where the researcher declared an interest in one or more companies and declared that there may potentially be a connection between research projects and the companies, but no specific details are provided, other than that any invoices raised by these companies will be approved by the departmental chair (1st line manager) and that the disclosing researcher will not be involved in any negotiations between the university and the companies in terms of research contracts. Although the disclosure was signed between the researchers and its line managers, no contract was concluded between the university and the start-up companies in which the researcher was involved. At some point an invoice was raised by the company for payment by university, after completion of certain research services. The university was faced with payment obligations to a company in which the researcher holds a direct interest, without following normal procurement procedures and policies. The researcher merely relied on the approved management plan. Had the management plan been properly worded this could have been avoided.

It needs to be made clear that reliance solely on a management plan is not sufficient to meet compliance with the conflict of interest policy appropriate further approvals of any specific transaction with a potentially conflicted party must be in accordance with the relevant university policies. It is best advised to implement a detailed plan of execution rather than simply rely on a disclosure of conflict as sole source of managing conflict of interest.

Another pitfall is the disclosure process itself. As universities are large organisations with thousands of employees and students associated with the university, it is very difficult to ensure that everyone is aware of the conflict of interest policy. After a conflict of interest disclosure has been appropriately submitted and approved by a line-manager, those environments that may be confronted, or affected, by such conflict are to be informed about the existence of the potential conflict. This is quite difficult. As personal information is shared in such a disclosure, it is also not possible to make the disclosures broadly available and although access to such disclosures must be restricted, it should be balanced with the risk of an actual conflict arising and not being dealt with appropriately. As such, apart from the specific environment (such as the faculty and department), typically the legal services / research contracts office / Technology Transfer Office, finance division (including procurement), human

resources division, should be aware of these conflict of interest transactions (however again it cannot be made widely available). This remains a challenge for universities.

A further challenge is that researchers and academics deliberately use the university brand to negotiate large research contracts with government institutions and department where the university is the conduit for the funding from government to the researcher's associated spin-out company. In such a situation, there is little room for a university to negotiate a proper contract amount to be utilized for research purposes for the benefit of the university and it is assumed and expected that the university will be willing to make available its internal resources (such as legal services, financial services) to manage the funding, and take full liability for the project to be delivered on time and within budget. This does not only pose a difficult conflict of interest position but holds contractual- and financial liability risks and poses potential reputational damage for the university in taking on the project or rejecting it.

Universities should be alert and not allow these contracts to be concluded or support such contracts if they are concluded. It might pose a reputational risk for the university when the first situation arises and being refused, but it will make a clear statement that the university is not allowing funds to be channeled via its start-ups unless the university is directly involved in the research project and contract negotiations. Obviously, the specific risk-appetite and strategic considerations of the university will be considered in the decision whether they want to honor any such contract or not.

FIGURE 1SOURCE: HTTPS://WWW.TREASURERS.ORG/HUB/TREASURER-MAGAZINE/HOW-RESOLVE-CONFLICTS-INTEREST

From the Juta Law Reports

The following judgments were reported up to October 2021

Interdict — Protection of intellectual property — Applicant seeking restoration of its 'possession' of information housed on communal servers and system hosted by first respondent, alternatively interim interdict to restore its access to servers and system pending institution of contractual proceedings — Court finding that although spoliatory relief not appropriate, applicant entitled to temporary interdictory relief — Balance of convenience favouring applicant: the servers and systems to which it was denied access contained its intellectual property to which it needed access to effectively conduct its business — Would face closure if relief not granted — In contrast, no harm would be suffered by first respondent if interim relief were granted — Interim interdict pending resolution of contractual dispute between parties accordingly granted. *Vital Sales Cape Town (Pty) Ltd v Vital Engineering (Pty) Ltd and Others*, Western Cape Division, Cape Town case No 3268/2021, Wille J 19 April 2021, 12 pages (reported at 2021 (6) SA 309 (WCC)).

Patent — Inspection — Search report — Provision, under s 43(1)*(a)* of Patents Act 57 of 1978, of search report issued in foreign country in respect of application for patent relating to same subject-matter lodged in that country — Allowing interested parties to assess the validity of South Africa patent without having to incur the costs of procuring their own search report — Failure to disclose reports issued in other countries where applicant was able to locate at least one other similar patent application in foreign country — Respondent having contravened s 43(1)*(a)* — Commissioner ordering respondent to comply. *Microsoft (SA) (Pty) Ltd v You First Mobile (Pty) Ltd* Commissioner of Patents case No 2020/59577, Mokose J, 8 pages (2021 JDR 1330 (CP).

Patent — Proceedings before Commissioner of Patents — Security for costs — When plaintiff will be ordered to furnish security — Nature of court's discretion — Balancing of relevant factors — Contention by plaintiff that unable to afford requested security — Plaintiff inability to pay — Whether established — Commissioner directing plaintiff to furnish security of R2 million as requested by defendant. *Microsoft (SA) (Pty) Ltd v You First Mobile (Pty) Ltd* Commissioner of Patents case No 2020/59577, Mokose J, 8 pages (2021 JDR 1330 (CP).

Trademark — Infringement — Application for interdict restraining first and second respondents from infringing certain of applicant's trademark registrations — Applicant being manufacturer, wholesaler and retailer of wetsuits and related water sports and surfing accessories, equipment and apparel, and proprietor of trademark REEF in a number of classes covering inter alia wetsuits, protective clothing, and accessories — Court finding that respondents, in their use of word mark REEF, without accompanying word BRAZIL, in relation to trade in clothing, footwear, including flip flops and bags, infringed trademarks of applicant, in contravention of s 34(1)*(b)* of Trade Marks Act 194 of 1993 — Court granting interdict in favour of applicant. *Wetsuits South Africa (Pty) Ltd v South Cone Inc* Western Cape Division, Cape Town case No 4806/19, Mangcu-Lockwood AJ, 24 pages (2021 JDR 1845 (WCC).

						5		8
2					4		3	7
		6			5			
	4	2	6		3			
	1						4	
			4		7	8	9	
			3			4		
3	6		5					9
7		9						

1sudoku.com n° 419362 - Level Expert

1	7					3	9	
6			8					
4	5				1	7		
7					3			
			5		2			
			9					5
		7	3				8	9
					4			7
	4	6					1	2

1sudoku.com n° 48904 - Level Expert

		4					1	2
			6					
	8		9		4	5		7
				9				5
6		7				2		1
2				4				
9		5	3		1		7	
					7			
7	1					8		

1sudoku.com n° 47574 - Level Expert

		1		3	4			
	4	3			2			
8			5				1	
3							9	
	8	4				2	5	
	9							3
	6				5			1
			6			5	4	
			8	2		9		

1sudoku.com n° 411895 - Level Expert

Play these sudoku puzzles on your mobile and find their solutions by flashing the codes below:

n° 419362 n° 48904 n° 47574 n° 411895

Figure 1 Source: Free Stock Images

This is our final edition for 2021

Wishing you all peace, love and prosperity for 2022.

May 2022 be a year of interaction with real people, in real places, with real touch and smiles.